

Chelsee – Spinal Injury
Detailed view by Bill Weis

Requirements:

1. Be able to voice control her bed (Invacare bed with 1115290 pendant).

Solution – High Level:

1. Designed a microcontroller-based Voice Activated solution that provided the desired functions of Head Up, Head Down, Feet Up, Feet Down.

Details of the Solution

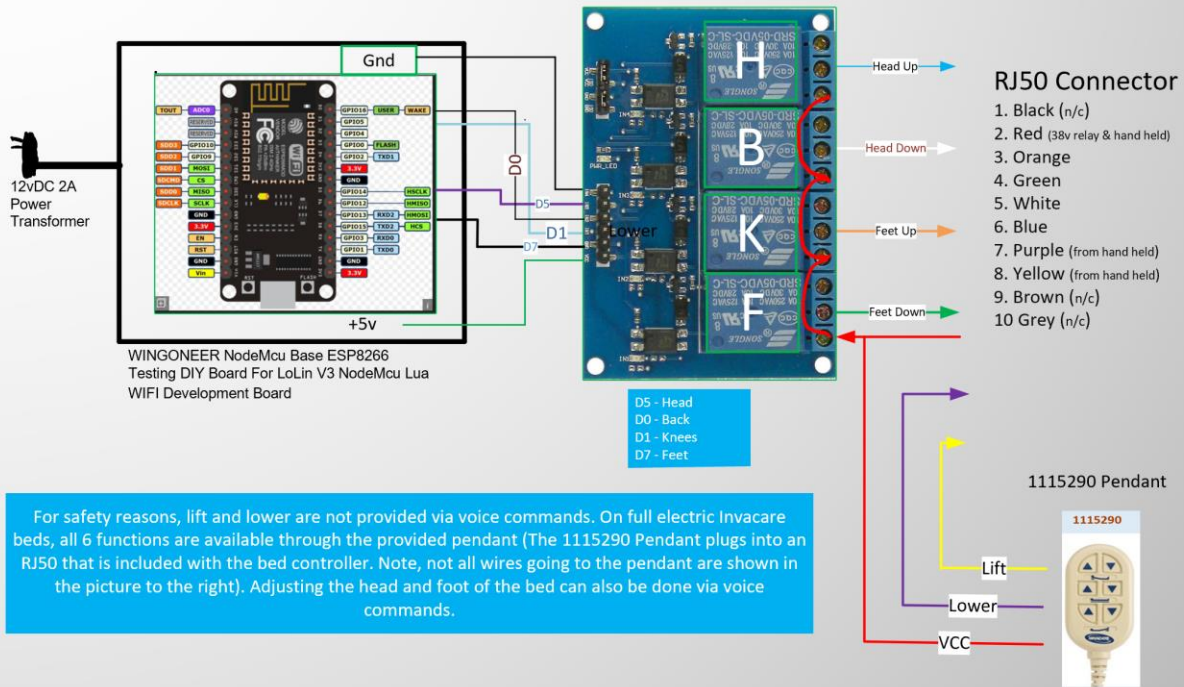
1 – Voice Control his bed – Chelsee has a full electric Invacare bed which is controlled by a 1115290 pendant. This bed is a 6-function bed which includes Head Up, Head Down, Foot Up, Foot Down, Bed Up and Bed Down. For safety reasons, Bed Up and Bed Down require use of the 1115290 pendant which is functional through the use of the RJ50 connector that we added to our controller. Bed Up and Bed Down is a feature that is only used by a caregiver anyhow, and the caregiver can continue to perform Bed Up and Bed Down as they always have. All 6 functions are still controllable via the 1115290 pendant.

The voice commands can be issued through Alexa.

We provided Chelsee with the ability to move the head of the bed up/down and foot up/down for various durations. Routines were created on Amazon to simplify the commands for Chelsee.

Here is a Visio diagram of the solution.

**Voice Controlled Bed Controller for Chelsee, mechanical relays to drive the
Invacare Full Electric bed, manual control for Lift and Lower
Bill Weis 3/21/2022
S/N 18028.07**



Resources

[Amazon Echo](#)

[Alexa Support](#) (Contact Support via the Amazon Alexa app - can have them call your number)

[Google Home getting started](#)

[Google Home Help Forum](#)

[Google Home Support](#) Phone number for Google Home hardware support = 855-971-9121 (24/7 days a week)

[Logitech Harmony Knowledge Base](#)

[Logitech Harmony Support](#) Phone # for Support = 866-601-5644 (M-F 8am to 6pm PST)

[Lifx](#)

[Wemo Support](#) Phone number for Support = 1-844-745-wemo (9366)